

## **REMARKS**

Claims 55-102 are pending in the application. Claims 55, 61, 69, 72, 75, 83, 88, 93 and 98 are currently amended.

Applicant notes that Claims 55, 69, 83, 88, 93 and 98 have been amended previously to include the limitation that “the metal chelate being present in amount of at least about 1% by weight of metal in the solution.” These amendments find support in Paragraph 31 on page 10 of the Specification as originally filed.

### **I. Rejection under 35 U.S.C. §112 First Paragraph**

Claims 66 and 67 stand rejected under 35 U.S.C. §112 first paragraph as not being enabling for methods to prevent diseases caused by *Phytophthora*. The Examiner reasons that the instant application lacks a working example to show that the disclosed solution is effective in preventing fungal infection. Applicant disagrees with this position. The instant specification is replete with teachings that the instant solution may be used to control or to prevent *Phytophthora* infestation. See e.g., Paragraph 23 on page 7 of the Specification as originally filed. A working example is not dispositive on the issue of enablement. The instant application contains sufficient teachings for the use of the disclosed solution to prevent *Phytophthora* infestation. In reality, not all crops in an infected field are necessarily infected. Application of the disclosed solution to the field necessarily involves both curative and preventive effects. Indeed, treating plants infected with *Phytophthora* in a field inevitably helps prevent future attack on otherwise healthy plants. Withdrawal of this rejection is respectfully requested.

### **II. Rejection under 35 U.S.C. §112 Second Paragraph**

Claim 72 stands rejected under 35 U.S.C. §112 second paragraph as being indefinite. Claim 72 has been amended to correct an antecedent. Withdrawal of this rejection is respectfully requested.

### III. Rejections of Claims 55-102--Double Patenting

Claims 55-102 stand rejected for obviousness-type double patenting over claims 1-8 of U.S. Patent No. 5,736,164, claims 1-5 of U.S. Patent No. 5,800,837 or claims 1-49 of U.S. Patent No. 6,338,860, each in view of U.S. Patent No. 4,139,616 issued to Ducret et al., Fenn et al. (1984), Reuveni et al., (1995), U.S. Patent No. 4,714,614 issued to Scher, and the Supa Crop reference.

The present application claims the combination of phosphates, phosphonates and metal chelates in a composition and their use in controlling fungal and/or bacterial diseases in plants. Among all the documents cited by the Examiner, only Supa Crop refers to the presence of phosphate, phosphonate and metal chelate in a composition; however, Supa Crop is not *prior art*. More particularly, applicant contests the premise that Supa Crop is prior art because there is no evidence showing Supa Crop was ever a publication within the meaning of U.S. Patent Law.

A reference is a printed publication “upon a satisfactory showing that such document has been disseminated or otherwise made available to the extent that persons interested and ordinarily skilled in the subject matter or art, exercising reasonable diligence can locate it.” *In re Wyer*, 655 F.2d 221, 210 USPQ 537, 540 (CCPA 1981). Supa Crop is a draft label submitted by its manufacturer (“Manufacturer”) to a governmental regulatory agency (“Agency”) for registration. There is not sufficient evidence which would lead one to reasonably believe that this draft label has been disseminated or otherwise made available to the public such that a person interested and skilled in the subject matter can locate it with reasonable diligence. Indeed, none of the documents relating to Supa Crop show that the proposed product or label had been approved for sale or use. The exchange of letters appears to be private correspondence between an Australian fertilizer maker and a regulatory agency, as these two parties grapple with the issue of whether phosphonates constitute a fertilizer under Australian law. The regulatory agency in question has been disbanded.

In the letter dated February 1, 1990, the agency opined that the label may be approved on the condition that multiple changes be made. In another letter dated August

29, 1991, the agency further required data supporting the inclusion of phosphorus acid in the product as a source of phosphorus. Although we do not have access to all the documents relating to the proceeding, it appears that the case was subsequently reviewed by the Agricultural Requirement Board prior to April 22, 1992. This resulted in the agency maintaining a requirement for additional data showing the effect of phosphorous acid, and a further request for additional data showing that the residue levels do not exceed legal MRLs (maximum residue levels). See the letter from the agency to the applicant dated April 22, 1992. The last piece of correspondence available to us was a letter from the Manufacturer to the Agency dated January 17, 1994, in which the Manufacturer responded to the Agency's Notice of Intention to Cancel Registration by expressing its continued interest in working with the Agency to procure an allowable label.

In light of all the documents available to us, it seems that the Supa Phos label might not have been approved all together, or at least not in the form as it is now contained in these documents. Insofar as this exact label was not approved, it is speculative to conclude that it was somehow available to the public and constitutes a printed publication within the meaning of the U.S. Patent Law. Applicant respectfully requests the Examiner to reconsider application of the Supa Phos reference.

Supa Phos. refers to only EDTA as a metal chelator. By contrast, the present claims, as currently amended, recite EDDHA which is chemically different from EDTA. Thus, Supa Phos. does not teach or suggest the use of EDDHA in the composition as presently claimed. EDDHA when used with these metals demonstrates less phytotoxicity than do the other chelating agents.

All other references except Supa Phos describe compositions that are missing at least one of the three components: phosphates, phosphonates and metal chelates. For instance, the composition disclosed in Fenn does not contain any metal chelate, whereas the composition taught in Scher does not have any phosphate or phosphonate. Applicant recognizes that it is possible to combine the teachings of multiple references in order to render obvious a claimed combination. However, the burden is on the Examiner to

establish a *prima facie* case of obviousness by showing not only the individual references each teaching arguably an element of the claimed invention, but also a motivation by one of ordinary skills in the art to combine these separate teachings.

As stated, the rejection merely finds that discrete documents touch upon isolated aspects of what is claimed, but nothing ties the combination together to show what is claimed. Specifically, the '164, '837, '860 patents merely show the use of phosphonates and phosphates in combination. The Examiner relies upon Ducret et al. to show that phosphonates are effective fungicides, Fenn et al. to show that phosphonates and phosphates are effective against Phytophthora, and Reuveni et al. to show that potassium phosphates are effective fungicides and fertilizers. Scher is applied to show that FeEDDHA is effective against Fusarium. Supa Phos, which is not necessarily prior art, is applied to show a composition having a different structure than what is claimed.

The '164, '837 and '860 patents have been the subject of a prior litigation. Applicant's attorney had previously submitted a document from that litigation, namely, the Rebuttal By Robert C. Adair, Jr. Of Defendant's Expert Report. Although that litigation does not particularly address the present claims, the content of this report illustrates the extreme problems with combining references in the manner that the Examiner suggests, particularly if the 1% weight percent limitation is to be achieved. These remarks address, for example, the Fenn and Reuveni references that are also presently at issue. The Examiner will be particularly interested to read the entire passage from the last paragraph on page 14 to the first full paragraph on page 16. Furthermore, the passage from pages 8-11 shows that limited uptake pathways are at issue and these can be overwhelmed to produce dramatically different effects at various concentrations of materials. Thus, it cannot be said that the references can be combined from a perspective of skill where experimentation to confirm the combination of particular materials is lacking.

Neither Scher nor Supa Phos and the other art provide such a motivation. Taken together, nothing in the combination of references shows how to make and use the solutions at the concentrations that are claimed. Just because materials can be mixed

does not mean that one should do so. The art is replete with instances of incompatible materials that exhibit phytotoxicity when combined. The industry publishes lists of such things, for example, as phytotoxic combinations. What the Examiner suggests falls into the realm of a rejection that is merely speculative. There is no motivation to combine because the combination would have entailed undue experimentation and nonenablement that was contrary to the normal phytotoxicity expectations in the art until such combinations were tested on plants. For these reasons, this rejection does not state a *prima facie* case.

The Examiner states repeatedly that “the prior art amply suggests the same as it is known in the art to combine phosphonates and phosphates, and to combine the same with metal chelates.” *See e.g.*, page 5 of the Office Action dated 1/12/07. Applicant respectfully requests that the Examiner point out specifically where in the prior art this alleged motivation to combine phosphonates, phosphates and metal chelates was shown. Applicant has found nothing in the prior art of record which teaches or suggests the combination of the claimed ingredients at the concentrations as claimed. As to the combination that is claimed, this would further have to be tested on plants before it is deemed useful from a perspective of skill. For the reasons stated above, the rejection cannot be sustained and withdrawal of this rejection is respectfully requested. Claims 55-102 stand rejected for obviousness-type double patenting over claims 1-2 of US 6,139,879 in view of US 4,139,616 issued to Ducret et al., Fenn et al. (1984), Reuveni et al. (1995), US 4,714,614 issued to Scher, and Supa Crop.

Applicant incorporates the preceding remarks in this same section and reasserts them here in context of US 6,139,879. The '879 patent merely claims the use of zinc, tin, manganese and/or copper in combination with EDDHA, pEDDHA, and/or EDDHMA. This does not address the problem of combination that is discussed above or the unpredictability and phytotoxicity risk in making random combinations of materials in this art. Withdrawal of this rejection is respectfully requested.

Applicant also requests clarification for the Examiner's remarks on lines 9-11 of page 7, since the Examiner refers to the '164 patent where the '164 patent is not cited in

raising this rejection. These remarks mischaracterize '879 patent if that was intended where, otherwise, the remarks are irrelevant because they are out of context to the particular rejection. Clarification is respectfully requested.

**Claim Rejections 35 U.S.C. §103**

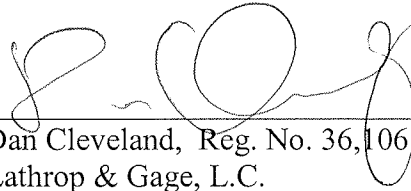
Claims 55-102 stand rejected under 35 U.S.C. §103(a) over Horriere et al. in view of Ducret et al., Fenn et al. (1984), Reuveni et al., (1995), US 4,714,614 issued to Scher, and Supa Crop.

Applicant incorporates the preceding remarks and reasserts them here in context of rebutting the obviousness rejection. Nothing in the combination of references teaches or suggests the use of the materials that are claimed at the concentrations that are claimed.

There are three references by Horriere et al. in the record, Applicant is not certain which Horriere et al. the Examiner is citing. Clarification is respectfully requested. For purpose of argument, Applicant assumes that the Examiner is citing U.S. Patent No. 5,169,646 issued to Horriere et al. The Examiner stated that Horriere et al. is used to show that combining phosphonates with other fungicides, such as maneb and mancozeb, demonstrates increased effectiveness. However, even if we assume Horriere et al. is relevant art, nothing is described or suggested in Horriere et al. to combine phosphonates, phosphates and metal chelates as presently claimed, nor is there any teaching or suggestion to perform the combination of the claimed ingredients at the concentrations as claimed. Withdrawal of this rejection is respectfully requested.

Applicant's attorney respectfully solicits a Notice of Allowance in this application. The Commissioner is authorized to charge any additionally required fees to deposit account 12-0600. Should the Examiner have any questions, comments, or suggestions that would expedite the prosecution of the present case to allowance, Applicants' undersigned representative earnestly requests a telephone call at (720) 931-3012.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Dan Cleveland', is written over a horizontal line.

Dan Cleveland, Reg. No. 36,106  
Lathrop & Gage, L.C.  
4845 Pearl East Circle, Suite 300  
Boulder, CO 80301  
(720) 931-3012  
(720) 931-3001 (fax)